



A Guide for CSIRO staff to CSIRO Commercial Practice

CSIRO's commercialisation mission is to achieve wide-spread adoption of its intellectual property and research skills through arrangements which maximise benefits for Australia.

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A Guide to CSIRO Commercial Practice

Foreword

This Guide has been prepared to give CSIRO staff insight into CSIRO's approach to commercial matters. It presents background and general policy issues, leads into how CSIRO views its relationships with customers and provides some information on relevant internal processes. It sets out not only to cover the “what” but also the “why” with the aim of assisting the process of negotiating a commercial arrangement between CSIRO and a customer through a better understanding of CSIRO's position.

This Guide is not confidential and so its contents can be shared with customers. However, it reflects information in CSIRO's Commercial Practice Manual, a “Commercial-in-Confidence” document which includes corporate policy statements and internal advice on matters such as legal issues, pricing and costing of research, contract risk assessment and contract negotiation which any organisation with commercial dealings would wish to keep confidential. Corporate policy statements determine the responsibilities and accountabilities of employees in relation to commercial activities. They direct CSIRO's activities to achieve consistent and effective management practices, to promote customer satisfaction and to avoid or manage disputes.

CSIRO staff should refer to the CSIRO Commercial Practice Manual for further information on the topics discussed in this Guide.

The context of CSIRO's commercial activity

CSIRO is an independent statutory authority constituted and operating under the provisions of the *Science and Industry Research Act 1949*. With a staff of around 7000 it is a large and diverse scientific research institution with laboratories and field stations throughout Australia.

The Act defines CSIRO's main role which is to carry out scientific research of benefit to Australia and facilitate the application of the results of that research for the further development of the Australian nation. Commercial application of CSIRO's research involves market research, customer interaction and the translation of research skills and project outcomes into profitable and socially useful products, processes and services.

The Chief Executive and the Deputy Chief Executives, collectively CSIRO's Executive Committee, have responsibility for strategic leadership, business development, performance review and the management systems of the Organisation.

Around two thirds of CSIRO's income is provided by the Australian tax payer through direct appropriation from the Federal Government and the remainder, growing in

proportion, from industry and other agencies; a total of \$640 million in 1997/98 rising to \$680 million in 1999/2000.

The requirement of the Federal Government that CSIRO achieves a significant proportion of its income from commercial sources ensures that its research portfolio assists Australian industry to compete technologically in local and international markets.

The challenge for CSIRO is to both do world class science and maximise sustainable industry and community benefit. CSIRO is not a profit making company, its remit is to create value for the nation, not for itself. This is not to say that it cannot share equitably in commercial benefits achieved by its customers but that any such income arising will be used to support further research of value to the nation.

To identify where tax payer funds can be best used to provide benefit to the nation, CSIRO notionally has divided the Australian economy and environment into 22 Sectors (See page 11) reflecting industries, markets and natural resources of national significance for which the future technology needs can be reasonably assessed in detail.

CSIRO is greatly assisted in this process by Sector Advisory Committees made up of senior influential managers from industry, industry associations, research & development corporations, universities and government departments.

The Sector Advisory Committees:

- advise CSIRO on the strategic, longer term directions for research and development for a Sector;
- assist in the development of marketing and research plans, promulgation of the plans and the evaluation of research and development outcomes; and
- create the opportunity for Divisions to work together on a systematic basis to provide research outcomes of value to customers and help set the Organisation's priorities for undertaking research.

CSIRO's research activities are carried out by the Divisions, the operational units of CSIRO. Each has a specific set of science capabilities and facilities. The Divisions combine their resources as necessary to provide the skills needed to execute research projects. These can be tax payer and/or customer sponsored projects and of short, medium or long term duration.

Management decisions are directed towards CSIRO:

- meeting the business and technological needs of stakeholders and customers and delivering value for their investment in CSIRO;
- providing research project outcomes and services that are not readily available from other enterprises in the Australian market;
- receiving compensation for its contribution;
- maintaining its world class scientific standards; and
- following the highest standards of business and ethical practices.

CSIRO aims for high standards in business activities in order to:

- use tax payer and company contributions efficiently and effectively;
- assist Australian companies to achieve higher levels of profitability and market share by investing in research and development appropriate to their products and processes; and
- minimise the commercial risk to CSIRO.

Professionalism and integrity are fundamental to CSIRO's culture and scientific tradition. This means that in all activities and relationships with customers CSIRO staff should:

- treat people with respect;
- deal fairly in all relationships;
- honour commitments and obligations including commercial confidentialities;
- communicate honestly;
- take personal responsibility for actions;
- deliver valuable outcomes to customers; and
- comply with all laws, statutes and regulations.

Working with customers

Marketing and communication

Marketing is an essential component of CSIRO's commercial activity. Each Sector plan is expected to include a marketing and communication strategy. It is expected that these strategies will be operating at many levels - project, Division, multi-Division and that the Sector Plan will ensure efficiency in these activities.

Sector marketing plans will differ according to the nature of the particular industry or stakeholder group, the needs of particular customers and CSIRO's interests in, and capacity to effectively meet these needs.

Knowledge of the potential customer base (market research) is a major issue in developing Sector marketing strategies. Market research includes clarifying the:

- relevant groups of customers in the Sector and the environments in which they operate;
- needs of the customer groups;
- structure and operation of target industries on a national and global scale;
- nature and scope of natural resource/environmental and other public good issues; and
- market opportunities for particular technologies.

Commercial arrangements

CSIRO seeks the very early participation of industry in the research process:

- to influence the direction of research;
- to increase the probability of commercial products or processes emerging; and
- to speed the development of techniques which provide competitive technological advantage to enterprises from which benefits flow to Australia.

CSIRO expects that commercial relations will result in:

- improved competitiveness of the commercial enterprise;
- exploitation of the research to the benefit of the nation; and
- an equitable return on investment for all parties.

CSIRO's core business is working with Australia's best companies regardless of size. These are companies which are, or have the capacity to be, internationally competitive with a long-term commitment to operating in Australia. These companies will have:

- relevant experience in the area of technology development and transfer;
- proven management skills and structures to ensure commercial success;
- a sound financial position and resources to fund the work proposed; and
- established infrastructure and track record in the relevant or a closely related market.

Accordingly CSIRO staff are expected to undertake a thorough business, financial and legal analysis of potential customers and their needs.

Generally CSIRO takes responsibility for the science and technology outcomes of its projects and expects its customers to have, or have access to, the required managerial, financial, technological and marketing skills and secure distribution networks to maximise prospects of successful commercial development. Customers may also share responsibility for science and technology outcomes.

When customers are paying for, or contributing significantly to a research project, they have a right to influence the way research outcomes are applied to their products or processes and to expect time and budget constraints to be met.

Commercial plans and project management

Before commencing a research project a research plan should be prepared which includes the commercial justification and potential application of the research. The early involvement of a company provides assessment of and support for the potential commercial value of the work. The preparation of a plan normally requires a thorough search of international technical and patent literature so that the commercial potential of research outcomes can be determined. Most importantly, before the project commences appropriate attention must be given to possible "routes to market".

Once a project is underway, and particularly when a customer is involved, project management procedures must be in place to review and update the research plan and guide research directions so that they maintain a clear focus on outcomes. Usually a Management Committee will be established and a Project Manager appointed.

Major and Key Accounts

CSIRO's designates certain customers as Major or Key Accounts. These customers:

- are leaders in their Sector(s) and provide early indication of future technology demand;
- account for, or have the potential to account for, a significant proportion of CSIRO's business; and
- focus CSIRO's research to provide significant benefit to the nation.

In consultation with the customer, CSIRO will appoint an Account Executive and an Account Manager for each Major/Key Account. Account Executives initiate, develop and maintain relationships with these enterprises at a senior level. Account Managers, in consultation with others in CSIRO, develop and manage customer relationships. They work closely with the customer to:

- identify new research opportunities;
- improve the efficiency of the relationship;
- exchange strategic information with a view to influencing the strategic direction of both parties and disseminate this information within CSIRO as appropriate.

Account Managers are intended to be “gateways” not “gatekeepers” between CSIRO and its customers and facilitate delivery of the best possible outcomes for our customers and for CSIRO.

Commercial responsibilities of CSIRO staff

In Divisions many staff are involved with commercial matters, with varying degrees of responsibility. There are specialist commercial staff in the Organisation who have responsibility for a wide range of activities designed to ensure maximum financial and social returns to Australia without exposing CSIRO to unacceptable risks. Their duties and expertise include marketing, contract negotiation, contract development and delivery, market analysis, intellectual property protection and management, patent advice, strategic business planning, facilitation of inter-Division commercial activity and developing and maintaining customer relationships.

However, a team approach is critical to the success of CSIRO's commercial operations. CSIRO's fields of activity are science based and customers may want to talk with the scientists who will be able to deliver the outcome they are seeking, as well as to the commercial staff who can facilitate the commercial arrangements. Accordingly, many scientists have significant involvement in marketing and business development activity.

All staff who are involved with the Organisation's customers must participate in suitable training and keep up to date with relevant information at appropriate stages in their careers. Market and business development skills are needed from the very beginning in planning and pricing a research project.

Costing and pricing of research

Where CSIRO is providing research services in competition with actual or potential commercial providers of the same services it is subject to the competitive neutrality guidelines of the Commonwealth Government. Generally, these guidelines mean that the price to the customer must reflect the real cost of doing the work and contain no hidden government subsidy. Real costs include:

- the marginal costs in doing the work (such as employee time and consumables);
- overheads (such as internal laboratory lease costs, employee on-costs and Divisional and corporate administrative costs);
- an allowance for replenishment of the intellectual and capital resources employed in the relevant business area (representing the investment cost of maintaining competitiveness).

It may also be necessary to include an additional amount to bring the price into line with what a tax-paying entity would be forced to charge to remain viable on an after tax basis.

Typically the Government's competitive neutrality guidelines will apply in the provision of routine testing services and advice where no original research is required.

Where original research will be involved in a project it is necessary to take into account further factors in pricing the work. These include:

- the expected benefits to Australia from the intended applications of the research outcomes by the customer (and if permitted under the terms of agreement by other Australian enterprises);
- other potential applications for the research outcomes;
- the expected benefits to the customer;
- expected benefits to CSIRO in terms of increased knowledge or potential royalty returns from successful exploitation by the customer.

Contract negotiation and development

If, as a result of initial discussions, it is clear that CSIRO can contribute to a company's technology needs CSIRO may prepare a proposal for the work.

Before entering into detailed project discussions and negotiations for an agreement it is good practice to conclude a confidentiality agreement to protect the interests of both parties and allow full and open discussion. It is essential for CSIRO and its customers to protect each other's valuable information and not allow it to become public. It is good practice for proposed recipients of confidential information to be first given a non-confidential description of the information so that they can decide whether that information is essential and should be accepted at the negotiation stage. Once accepted, all CSIRO staff (and those of the other party) are bound by the confidentiality agreement.

No single individual has the skills to initiate, scope, licence, conduct, review and deliver research outcomes. Accordingly CSIRO advocates a team approach to proposal development and negotiation. It is recognised that customers may want to talk to the

scientist who will deliver on the research outcomes. Normally this person will wish to be supported at least by a person with expertise in the commercial area.

It is essential to have a written contract in place for each research project involving a CSIRO customer in order to clearly define the work, what the parties bring to it, and their respective rights and responsibilities. By clearly defining the extent of the agreement field and the commercial applications the risk of a subsequent dispute regarding ownership and commercial use of project results and intellectual property can be minimised.

CSIRO has a suite of Standard Form Agreements which it uses as a basis for contract preparation and negotiation. Departures from these Standard Forms are permissible but may require individual legal clearance.

Contract risk assessment and approval

On completion of the negotiation, the contract is submitted for internal CSIRO approval and execution. Part of this process is a risk assessment which takes into account such factors as the type of contract, the financial strengths of the customer, the likelihood of product liability claims, the potential for intellectual property conflicts, political or commercial sensitivities and the capacity of CSIRO to deliver the expected outcomes. The procedures for preparing and considering formal risk assessments are set out in the Commercial Practice Manual.

There are a number of factors to be taken into account in determining who has the authority to approve contracts. These include the size of the contract, the nature of the work and the nature of the customer. Divisional Chiefs have significant authority in such matters but some contracts must be approved at the level of Deputy Chief Executive, Chief Executive, Board or Minister.

Maintaining productive relationships

Having established a close and successful working relationship with a customer CSIRO is keen to maintain the relationship. This may involve providing post-project support to assist with commercial applications of the technology or help in identifying the next project of commercial value to the customer.

To develop CSIRO's commercial skills and procedures it undertakes regular internal audits to check for compliance with approved commercial practice and to further develop standards of best practice. It also measures and reports on its performance in a number of areas including commercial activities. Part of this process is to seek customer perception of CSIRO's performance after a project has been completed to find out whether:

- the customer is satisfied with the work;
- the outcomes fell short of, matched or exceeded the customer's expectations;
- the customer's view is that CSIRO provided value for money; and
- the research outcomes have been or will be fully implemented and value delivered.

CSIRO name and logo

The CSIRO brand name is an important element in CSIRO's marketing strategies and needs to be protected, built on and reinforced in all that CSIRO does. Both the name "CSIRO" and the logo are registered trade marks.

The use of CSIRO's name and logo by customers in connection with the promotion of goods or services may be permitted where there has been sufficient CSIRO involvement in their development or provision. However, this use must be under controlled conditions and CSIRO has a formal approval process for these requests.

Intellectual property

The increasing globalisation of business with the breaking down of national trade barriers means that international commercial competition is intensifying at a rapid rate. In this new environment innovative technologies are increasingly important components in the competitiveness of Australian businesses. To maintain their competitive edge and justify substantial investments in new productive capacity and marketing, companies must own or gain access to technologies which are critical to their business and which have strong intellectual property protection.

To provide optimal support to Australia's internationally competitive industries CSIRO must ensure that the new technologies it develops are legally well protected. Usually this will mean applying for a patent at an early stage but it also means taking special care to identify and protect all related and relevant intellectual property. The latter will often include information and ideas which are not themselves patentable but which have significant value if they are kept confidential.

In situations where new technology is generated by CSIRO under contract to, or in collaboration with, a particular company the issue of ownership must be dealt with explicitly and in writing. Where the technology is strongly related to a body of intellectual property of potentially wide application which is already owned by CSIRO it is preferred to retain ownership of rights in the new technology in CSIRO. The company would receive a suitable licence, usually exclusive in the agreed application area. Outside that area, CSIRO would remain free to exploit the technology at its own initiative for the benefit of Australia.

Divisions are primarily responsible for the identification and protection of CSIRO intellectual property. To assist them in this role, CSIRO has a contract at corporate level with a special-purpose provider of intellectual property management services.

Legal issues

CSIRO is a legal entity which can create binding legal relations with others.

CSIRO employs qualified lawyers and also has a panel of external legal experts to assist with and advise on potential legal implications arising from contract negotiations. This is especially the case for legal matters which can arise in the

case of complex legal structures such as equity holdings, partnerships, joint ventures and Cooperative Research Centres.

CSIRO may seek to enter into a complex commercial arrangement because it is the best or only way of:

- facilitating the transfer of CSIRO's know-how and technology to industry to enable successful commercial application; or
- maximising the industrial impact of CSIRO's research; or
- maximising economic returns to Australia; or
- managing the risk.

Permission must be sought from a Deputy Chief Executive to enter negotiations for these complex arrangements and proposals involving them must receive Chief Executive and Board approval before a commitment is made.

Owning long term equity in a company is not CSIRO's preferred position. Such arrangements are not contemplated when other commercial arrangements, such as licensing, would be just as effective in transferring technology and achieving commercial benefit. When CSIRO does take equity it expects progressive reductions in the CSIRO interest as the company becomes fully commercial.

The conduct of projects should be such that open, frequent communication enables the parties to resolve any misunderstandings before they develop into disputes. Occasionally, however, disputes can occur and CSIRO has a disputes resolution process which quickly brings the problem to the attention of the appropriate legal and line managers.

In the event that a dispute develops with a customer it is important to resolve it as soon as possible and whenever possible before litigation is involved. Appropriate managers agree on an approach and meetings are held with the customer to resolve the dispute. If this fails to resolve the problem then alternative dispute resolution processes such as independent expert appraisal and mediation are brought in before proceeding to more formal legal processes.

Publications

CSIRO encourages the publication of scientific papers as a means of contributing to the growth of scientific knowledge and effecting review of its science research by international scientific peers. In order to ensure both that the work submitted is of the standard that the Organisation would expect, and that there is no premature disclosure of confidential information, CSIRO has a formal approval process for publications. When CSIRO is working with a company, normally that company will be involved in the discussion about when and what to publish.

Summary of CSIRO commercial practices

CSIRO is committed to the highest ethical and business practice standards in its commercial dealings.

CSIRO's Commercial Practice Manual sets out responsibilities, policy parameters and corporate best practice guidelines for all aspects of commercial practice and provides a clear description of roles and responsibilities for managers involved in commercial matters.

CSIRO is committed to the continuous improvement of its commercial activities, through review and audit processes, updating of procedures, practices and training.

CSIRO seeks the early involvement of customers in research projects and to be responsive to the needs of its customers. Where there are alternative potential customers CSIRO applies appropriate procedures for selection of and liaison with customers to achieve a commercial objective which is of greatest benefit to the nation.

Account Executives and Managers are appointed for significant customers to facilitate coordination of CSIRO contacts with them.

The terms and conditions of business are the responsibility of the CSIRO negotiating team leader. Pricing takes into account the apportionment of intellectual property rights and other non-cash forms of remuneration.

Normally customers are notified well in advance of CSIRO's contract approval requirements.

Risk Assessment analysis is an integral part of CSIRO's contract approval process.

CSIRO uses a suite of Standard Form Agreements as a basis for a contract preparation and negotiation.

CSIRO owns all intellectual property created by its employees in the course of their employment and safeguards it in accordance with guidelines and policies and its obligations to its customers.

CSIRO encourages the publication of scientific papers providing this is not detrimental to national benefit, the commercial expectations of, or legal commitments to, customers or the commercial or scientific value of intellectual property rights.

CSIRO structure for industry interaction

CSIRO Divisions combine their resources as appropriate in projects providing science and technology support to the Australian economy and environment. CSIRO has divided the latter into 22 Sectors grouped in 5 Alliances:

- Agribusiness
 - Field Crops
 - Food Processing
 - Forestry, Wood and Paper Industries
 - Horticulture
 - Meat, Dairy and Aquaculture
 - Wool and Textiles
- Environment and Natural Resources
 - Biodiversity
 - Climate and Atmosphere
 - Land and water
 - Marine
- Information Technology, Infrastructure and Services
 - Information Technology and Telecommunications
 - Built Environment
 - Measurement Standards
 - Radio Astronomy
 - Services
- Manufacturing
 - Chemicals and Plastics
 - Integrated Manufactured Products
 - Pharmaceuticals and Human Health
- Minerals and Energy
 - Coal and Energy
 - Mineral Exploration and Mining
 - Mineral Processing and Metal Production
 - Petroleum

Other sources of information

- CSIRO Strategic Research Plan 1997-98 to 1999-2000 (August 1997).
- CSIRO Operational Plan 1997-1998. See also subsequent years.
- CSIRO Web site called Industry Solutions at <http://www.csiro.au/business/industry.htm>

This document has been issued by Dr C.M. Adam, Deputy Chief Executive (Commercial). It is designed to complement the Commercial Practice Manual and documents produced within divisions relating to commercial practices.